Statement of Work

Innovations

I. Introduction

The Environmental Protection Agency, Office of Policy, Economics and Innovation (OPEI) is seeking sophisticated and strategic technical support to initiate, test, evaluate, and promote widespread adoption of innovations in the nation's system of environmental protection. EPA's commitment to innovation was renewed in its recently announced strategy, "Innovating for Better Environmental Results" (hereafter referred to as the "Innovation Strategy") **www.epa.gov/opei/strategy**.

Innovations by their nature can take many forms, including forms not currently anticipated. They may range from incremental improvements in existing policies and programs to entirely new ways of addressing environmental problems.

Technical support is expected to assist the U.S. EPA in stimulating and promoting innovation in a variety of ways: establishing pilot projects, evaluating the results of projects and other innovative efforts, analyzing the potential value of innovations for broader application, applying promising innovations and disseminating information about innovation on a broader scale, and providing systemic support to encourage an organizational culture that embraces innovation.

II. Background

There is a growing consensus among many parties working on environmental issues that our nation's environmental protection system faces an increasingly complex set of challenges. Problems such as polluted runoff from streets and farms, global climate change, and loss of habitat and biodiversity require a broader set of tools than used in the past. There is also widespread interest in assessing whether alternatives to the existing regulatory tools could provide environmental results with less economic and social burden.

A variety of factors create the need to search for more innovative approaches to environmental protection. Some of these are pressing environmental problems for which existing regulatory tools have not been effective. Others are economic such as continued pressure to create more value for each taxpayer dollar invested. Some feel that the single medium approaches that have dominated existing environmental laws and programs should be

complemented with programs that adopt a geographic, sectoral or facility-wide approach. Accordingly, EPA recognizes that it needs to be adaptive and flexible in finding ways to protect public health and improve environmental protection.

As elaborated more fully in the Innovation Strategy, EPA recognizes the need to develop new approaches to improve environmental results. These approaches include a range of functional and operational techniques: cross-media approaches, incentives to reward and encourage performance beyond regulatory requirements; partnership programs; use of environmental management systems; regulatory flexibility; emissions and effluent trading and related efforts to achieve overall environmental improvement; the creative use of information on environmental impacts; smart growth approaches to land development; and pollution prevention. Often an innovative approach may include a combination of these approaches. Furthermore, EPA must ensure that it has an organizational culture that encourages innovative thinking as a routine part of the Agency's way of doing business.

To enhance its innovation capacity, EPA needs technical support of many kinds. Such expertise will be drawn on to strengthen environmental partnerships, target priorities, expand the current collection of tools, conduct supporting technical analyses, and create a more innovative culture to effectively solve challenging problems.

III. Scope of Activities (and expertise that will be needed according to the task)

To promote the discovery and use of innovations at all levels of environmental protection, EPA will require technical support for multifaceted activities across the whole innovation cycle. The innovation cycle includes five different elements: 1. Planning and managing; 2. Testing; 3. Evaluating and analyzing; 4. Encouraging the broad-scale use of innovation; and 5. Addressing the organizational culture to encourage the discovery and use of innovations. These elements may occur as sequential phases, in parallel, or as single steps depending on the situation. In some cases, innovative approaches may be identified by the Agency itself; in other cases they may come to the Agency's attention through other sources such as states, communities, or regulated organizations.

The contractor is intended to be a resource for innovators throughout EPA. The contractor shall primarily support the Office of Policy, Economics and Innovation (OPEI), Office of Environmental Policy and Innovation (OEPI) but may be called on to support work in other parts of OPEI or in other offices across the Agency (including regional offices). All effort performed by the contractor shall be in accordance with the task areas specified in the Statement of Work.

Work Assignments: The contractor will be required to perform activities according to EPA's determination of their nature, scope, level of priority, and desired outcomes via the issuance of work assignments. The contractor shall respond to work assignments in accordance

with the appropriate section(s) of this Statement of Work. These work assignment activities may fall into one or a combination of the five elements.

Work Plans: In response to specific requests for work by EPA under this SOW, the contractor shall prepare specific work plans, provide progress reports, and final reports. All deliverables produced by the contractor shall be presented to EPA in a format approved by the PO and/or the WAM.

Element 1: Planning and management support

Description: Element 1, planning and management, supports work in all of the other elements described in this SOW. Under this element, EPA will establish overall innovation management plans and will build background information and inventories to help with decisions related to current and proposed innovations. In identifying and building support for proposed innovations, interactive processes are needed for dialogues, surveys, focus groups, etc. The contractor shall provide planning and management support for environmental innovations.

Performance: The planning and managing section of the SOW includes many activities and related analyses and information that will also be performed in connection with, or to complement, the rest of the elements that support innovation. For example, activities established under the first element may be utilized as innovation goes through testing (element 2), evaluation (element 3) and scale-up (element 4).

1. Research: The contractor shall perform analytical research to provide information and answers to specific questions about existing or proposed innovative approaches. EPA is interested in such questions as: what potential innovations have been identified within the Agency or by others such as states, communities or regulated organizations; whether the innovation is already being used; what the potential benefits (and risks or costs) of the innovation are; what barriers exist; what is needed for successful deployment; and what are the predicted outcomes (environmental or others); among many other issues. In performing studies and research for the identification, design, and development of innovations, the contractor may be asked to perform: 1. Information and database searches; 2. Literature surveys; 3. Trend analyses of economic, environmental, and regulatory factors; 4. Opportunity assessments; 5. Provide recommendations to assist with policy analysis and formulation; 6. Evaluation of current projects and programs; 7. Data gathering in the field or a variety of issues; 8. Analysis of significant environmental problems, their causes, and possible approaches for addressing them; 9. Risk Analysis of innovations; 10. Projection studies for training, outreach and other resource needs; 11. Projection studies for environmental outcomes; 12. Surveys of potential external partners for innovation activities; 13. Analysis of innovations at the state and local levels. The Contractor shall conduct literature searches using data bases and sources identified in the work assignment (or specified later in written technical direction) and provide the resulting summary or technical analysis. The Contractor shall also identify discrepancies

or inconsistencies in the data sources. The contractor shall be expected to perform other research exercises in accordance with the Statement of Work.

2. Communication (and education): As required in the Work Assignment Statements of Work, the contractor shall communicate and disseminate information concerning existing and proposed innovations across the agency and to states, local governments, tribes, the public, industry, local or national environmental groups, small businesses, and other organizations. Communication functions may include, but are not limited to:

2.1- Publications: The contractor shall prepare drafts of materials and revisions according to the Work Assignment. The contractor shall coordinate with the National Technical Information Service (NTIS) and other identified entities as appropriate to make documents available to the public. This includes copying materials to go to NTIS if needed, keeping track of documents, and delivering materials to NTIS and others. Forms of output could include guidance documents, technical manuals, outreach pamphlets, brochures, and fact sheets. Contractor may be asked to prepare electronic versions of draft and final documents, in either or both HTML and PDF. In all cases, documents shall comply with Section 508 requirements for accessibility (www.section508.gov), and EPA guidance where available.

2.2- Internet-based outreach and dialogue: The contractor shall fully support internet-based means for outreach to and involvement of the public. Such support shall include, in addition to the services described below under "web development support," interactive mechanisms such as Internet-based dialogues that facilitate public discussion on topics related to all aspects of the agency's business (policies, rules, issues, etc.). The contractor shall have the capacity to design and develop appropriate web-based programs to manage dialogues for internal national work groups, intergovernmental groups, or for the general public; recruit expert panelists, and report results both on a daily and a post-event basis. An example of this kind of dialogue that the contractor may be able to support is described in "Democracy On-Line: An Evaluation of the National Dialogue in Public Involvement in EPA Decisions," available from Resources for the Future, Washington, DC (January 2002).

3. Data gathering and information management: The contractor shall collect, organize, and maintain data and information to be used by the Agency. Such data may be from secondary sources or may have to be gathered by the contractor and may include environmental data socio-economic data, opinion surveys, and a wide range of other data relevant to the design or performance of policy innovation.[1] EPA will use this data for its analysis of technical issues and options for alternative regulatory and non-regulatory approaches and strategies relating to environmental protection. EPA and others may also

[1] The contractor shall not have access to confidential records protected from disclosure by the Privacy Act of 1974.

use this information to find innovative approaches that can be used in other applications. In addition, the contractor shall use this data as background information and inventories related to current and proposed innovations and make them available to the EPA staff or others. The contractor shall develop, manage and analyze applications and databases using EPA-supported platforms and software (see **www.epa.gov/webguide).** The contractor shall create or use software programs to design forms, collect and enter data, manipulate the data as required by EPA, and design and produce formal and ad hoc reports. The contractor shall perform these activities in conjunction with developing electronic and hard copy catalogues and/or internet/intranet collection/display sites where the EPA staff or others outside of EPA can easily access the information or data. The contractor shall also develop publications and other vehicles for communicating to the general public about all aspects of innovation in connection with all of the elements described below. Such communications may relate to projects that have been proposed or are underway; results of evaluations; diffusion of innovation ideas, among other things.

4. Surveys and feedback: The contractor shall provide support for surveys and other means for obtaining feedback from external parties dealing with EPA. This includes planning, designing, conducting, analyzing, and presenting the results of surveys, preparation of the Information Collection Request (ICR), and assisting OPEI, and other offices and regions in EPA, in how to design, conduct and analyze such surveys. It may also include maintaining a database on surveys that have been conducted by EPA to serve as a resource for future survey design, and assisting EPA in building a consensus about the purpose and follow up activities. See the EPA feedback guidelines, "Hearing the Voice of the Customer," and the permit toolkit, "Customer Service in Permitting," at the following web sites: **www.epa.gov/customerservice/feedback/voice.htm** and **www.epa.gov/customerservice/permits/**.
Note: Surveys for more than nine non-federal respondents require approval from the Office of Management and Budget (www.epa.gov/customerservice/icr/1711ss03.htm).

5. Reports: The contractor shall provide EPA with various evaluation and analytical reports; option papers, recommendations, and proposals; project design reports; minutes, summaries, and findings from meetings; internet and electronic data base and information inventories. Contractor may be asked to prepare electronic versions of draft and final documents, in either or both HTML and PDF. In all cases, documents shall comply with Section 508 requirements for accessibility (www.section508.gov), and EPA guidance where available.

6. Web development support: The Contractor shall provide web services both on a project-specific basis and for the purposes of broader scale outreach. The purpose of the broader scale outreach is to effectively communicate innovations to EPA staff, States, interested parties and groups, and the general public. These web services shall include:

1) Maintain existing web sites and data bases, including the design, testing, and implementation of enhancements, adding and populating new modules, and fixing bugs in a short timeframe.

2) Design, test, and populate new web sites and data bases to support innovation and policy development. Designs will be tested and optimized for different browser conditions and operating environments.

3) Suggest ways to improve the Web site.

4) Ensure that all web work is in compliance with Agency and Government-wide web policies and requirements. These include Federal Section 508 requirements for accessibility and EPA specifications for public Web site and Web page content.

7. Events: The Contractor shall provide technical and administrative support for informational and training events about innovation both within the Agency and including others. Events include meetings, conferences, workshops, focus groups, public hearings, and other public involvement events. These events may be limited to participants from within the Agency, include EPA and other regulatory agencies, or may be open to the general public, and may be national, regional, or local in scope.

a. Technical support could include researching and preparing background information; facilitating sessions; recording sessions and preparing and analyzing minutes, summaries, and proceedings. Forms of outputs may include research and technical analysis of issues raised by affected or concerned participants. The contractor shall clearly indicate the assumptions made, sources used and not used, and methodological choices made both conceptually and in data selection.

b. Administrative support could include preparing mailing lists, correspondence, name badges, registration packets, developing on-line secured sites, managing registration, and paying hotel bills, purchasing conference materials such as notepads and folders, producing flyers and agendas, arranging for working meals, staffing for the registration desk, and procuring audio-visual equipment.

Some current examples of planning activities are to establish an innovation catalogue and database, to analyze system change models, and to develop criteria and process for evaluating and scaling up successful experiments.

Element 2: Testing innovations

Description: Element 2 involves testing proposed innovations on a limited scale (e.g., pilot projects) to assess the effectiveness of the approach in addressing environmental problems or improving the performance of the environmental protection system. Such testing is expected to provide useful information about such topics as environmental and behavioral impacts, costs, procedures, and acceptance, in real-world applications. In this phase EPA will select the innovation to be tested, identify partners for such testing, identify stakeholders and other

interested parties, and will determine the scope and resources needed. EPA will work with partners and other parties to specify the actions to be undertaken and necessary implementing steps. EPA will then implement and monitor the test activities. EPA may also perform orientation and training according to the needs of the stakeholders and EPA staff. The contractor shall provide support for all of these aspects of testing environmental innovations.

Performance: The contractor shall support testing or piloting of innovations by EPA or by the outside partners identified by EPA. EPA will determine the extent of testing needed. Activities in support of testing shall include all aspects of project management, including: providing technical assistance to EPA and its partners in designing the pilot project or other test; identifying potential stakeholders and other interested parties; providing training workshops; identifying and analyzing potential innovative approaches; soliciting proposals for testing those approaches or other approaches identified by outside parties; facilitating meetings with partners, stakeholders, or the general public; creating materials for communication with partners, stakeholders, or the general public; organizing and implementing pilot projects, developing and implementing techniques for monitoring or tracking progress and outcomes in such tests; site visits, and analyzing the experience and lessons learned in such tests. The Contractor will not itself be the implementer of tests or pilots.

Some current examples of testing activities are the ongoing implementation of Excellence and Leadership (XL) projects and Environmental Council of States (ECOS) projects, and the design and implementation of other pilot projects under programs such as Pollution Prevention in Permitting Program(P4).

Element 3: Evaluating innovations

Description: Element 3 often complements initial research performed during planning in Element 1 and testing in Element 2. EPA will evaluate a variety of innovations including but not limited to those tested by EPA under Element 2. EPA will also revise earlier analyses and formative evaluations of the proposed innovative project or program. Some evaluations may be extensive while others may be brief assessments. Evaluations will focus forward thinking actions to determine deployment plans, policies, and strategy. Evaluations and assessments will provide information to help EPA answer questions about project selection and priorities, economic factors, environmental impacts/results, future plans and deployment strategies, regulatory conflict, cultural barriers, and gaps in the knowledge base of the people who are involved. Also, evaluations will provide information about the potential effectiveness of proposed innovations. The contractor shall provide support for evaluating and analyzing environmental innovations.

Performance: The contractor shall perform a variety of analyses and evaluations relating to innovations that have been implemented by EPA or its outside partners. Once completed, the evaluation and/or analysis shall be presented to EPA according to the work assignment.

1. Evaluations: The contractor shall perform surveys, participate in conference calls, perform site visits, design evaluation frameworks, and implement evaluations for innovations.

Evaluations shall address the technical and behavioral elements of change. Such evaluations ***shall include***:

- Policy and program evaluation to identify potential innovations and the impacts of those selected.
- Formative evaluations to evaluate potential innovations before testing may be desirable. This evaluation is supported by research and policy analysis.
- Cost-effectiveness evaluations to analyze the benefits of the outputs/outcomes with the external and internal costs of producing them.
- Process evaluations and assessment to analyze and track progress and to assess the projects on a variety of indicators including environmental and organizational impacts.
- Impact evaluations of the scope and effectiveness of the different phases of the innovation cycle in terms of end results.
- Outcome evaluations comparing outcomes to the objectives or the goals of innovation during testing and scale up.
- Evaluations of emerging issues to identify and evaluate emerging environmental and human health problems.
- Other evaluations related to the innovation.

2. Analysis: The contractor shall analyze data and information about innovations. As part of the evaluations, analyses shall address the technical and behavioral elements of innovation.

- Analyses of trends: The contractor shall perform trend analyses for innovation related topics occurring within other countries, states, local governments, tribes, and industry to identify opportunities for innovations. The contractor shall collect information and qualitatively and/or quantitatively analyze current trends to identify opportunities for innovative projects or programs. Trend areas may include organizational, economic, environmental, technological and regulatory factors such as economic incentives, pollution levels, conservation activities, and human behavioral changes.
- Analysis of opportunities: The contractor shall identify, analyze, and prioritize opportunities for innovation according to specific criteria established by EPA. This may require up-front research including information searches, surveys, and other feedback activities. Activities may include evaluating the EPA criteria for possible improvements, performing research to identify "best practices" for policies, rules, and practices, and analyzing different options for changing such policies, rules, or practices. "Benchmarking" is a term used to describe the practice of looking outside your organization to find and possibly use a tool or process of another organization. EPA often benchmarks with other federal agencies but may also benchmark with organizations in other countries, in states, and in local communities.
- Analysis of existing and proposed legislation and regulations for policy development: The Contractor shall perform initial and trend analysis in environmental legislation and regulations at the federal, state, local, and tribal levels for industries and businesses identified by the Agency and provide information for policy development for innovative projects or programs based on those trends.

· Evaluative Design Work - Pilot Design: The contractor shall provide technical support evaluating the design of the testing and deployment of an innovative idea. Evaluations that come into play in the design include but are not limited to the cost-effectiveness, organizational adjustments, behavioral changes, and environmental benefits of prospective projects.

  Some current examples of evaluations in OPEI are: to complete the evaluation methodology for XL and apply it to five projects, to complete the evaluation framework for ECOS projects, to continue XL progress reports, to develop comprehensive reports on innovative projects similar to those issued previously on XL projects, and to complete an evaluation of the New England Laboratories XL project. Some current agency-wide examples of evaluation activities are to hold an annual program evaluation competition, maintain Agency-wide Program Evaluation Network (PEN) management and overhead, and undertake additional capacity building activities for evaluation in all offices.

Element 4 : Encouraging broad-scale application

Description: Element 4 involves strategically deploying or "scaling up" the innovation. Deployment or scale up strategies will take proposed innovations to broader application and may even take the innovation to a national level. Deployment may involve the integration of the innovation into a nationwide program or may occur on a narrower scale. In some cases, EPA will be the primary entity adopting the innovation; in others, parties outside EPA such as states, local government, industry or others will perform the deployment. In the latter case, EPA, working with these parties, will focus on outreach and will provide the leadership, guidance, policies, and coordination needed to turn an innovation into an established environmental practice. The process of deployment and scale up will likely take many forms and vary greatly depending on factors such as the nature of the innovation, the partners involved in the process, and the constituencies where innovation is needed to be adapted. The contractor shall provide support to deploy or scale up environmental innovations.

Performance: At EPA's direction**,** the contractor shall assist in the deployment or scale up of the innovation. The contractor shall provide assistance to EPA in developing and implementing strategies for scaling up or deployment**.** In general, innovation deployment and system change will occur through the following four activity elements, although this is not an exclusive list:

1. Support for policy and regulatory development designed by EPA to enable mainstream use of an innovation and incorporation into the operational systems of environmental regulatory agencies;

2. Outreach and communication support designed to assist EPA convey both the utility of the innovation itself and also implications to stakeholders on its incorporation into regulatory systems;

3. Education and technical assistance support designed to help EPA create capacity for its use and delivery within environmental regulatory agencies;

4. System change support to assist EPA facilitate and support organizational adjustments and strategic planning necessary to fully institutionalize an innovation within an environmental regulatory agency.

In connection with the above tasks, and others not specifically listed, the contractor shall: gather facts, perform research and analysis, identify options, convene and facilitate meetings with stakeholders, produce publications, analyze and brief people inside and outside regulatory agencies about innovations, hold conferences, and provide technical web and data base expertise. In some cases, the functions involved in scaling up an innovation will be similar to those in element 2, Testing (e.g., applying an innovation that has been tested at one facility to a limited number of facilities in a different jurisdiction or industry sector). Therefore, all the functions listed in element 2 may be required in Phase 4 as well. The scope of this contract does not extend to full-scale implementation of the innovation, but rather to the transition from the initial testing phase to broad application.

An example of scale up and system change activity is the ongoing effort to encourage wider use of the self-certification approach for small businesses first used in the Massachusetts Environmental Results Program (ERP).

Element 5: Promoting systemic organizational change

Description: Element 5 recognizes that the organizational fabric of EPA must be supportive of innovation for successful innovations to occur. (See Part IV of the Innovation Strategy, "Foster A More Innovative Culture and Organizational Systems".) For innovation to be part of the way EPA does business, the staff and managers at EPA and partner organizations must be willing to think of themselves as environmental problem solvers (as well as implementers of established programs), to consider alternatives to traditional approaches for addressing problems, and to take reasonable risks in trying out new approaches to environmental protection. This element complements innovative activities supported by Elements 1-4 and fosters success of the Agency's routine activities. Element five has been established to ensure that a culture of innovation exists at EPA and that a system is developed to foster the performance of this organizational culture.

Performance: The contractor shall provide support to foster systemic organizational change designed to support a culture of innovation. The contractor shall be knowledgeable about organizational systems and their impact on organizational behavior, and about methods of organizational culture change. The contractor shall provide substantive and procedural support in at least six aspects of organizational culture change: (1) goal definition and development; (2) barrier identification; (3) change strategy development; (4) strategy implementation; (5) assessment and evaluation; and (6) strategy revision and refinement. Functions involved in Element 5 may include research and analysis of organizational systems (such as budgeting,

human resources, contracting, and others); communications; information management; project and activity tracking; training; facilitation; meeting support; workshops; focus groups; interviews; literature review; surveys; coaching and advising; and other methods.

Potential culture change activities may also include: making innovators throughout the agency aware of the services available under this contract; assisting EPA in evaluating innovation proposals for funding; and supporting a national symposium of innovators within and outside EPA.

Examples of initiatives under way at EPA that may encourage culture change are the rotation of senior managers and the reassessment of the Agency's goal structure to make its performance objectives more outcome-based.